

information for the calling party using the code or password. For example, in a preferred embodiment, if the present invention is accessed by means of a credit card call, then the credit card number would be used to access a "home" area code and exchange code associated with the owner of the credit card. In another example, in a preferred embodiment, a particular calling party is associated with a particular telephone subscriber unit, such as an office telephone subscriber unit. In another example, in a preferred embodiment, a particular calling party is associated with a particular wireless mobile phone handset. Other means may be employed for associating identification information with the calling party as are known in the art.

[0031] In a preferred embodiment, the calling party identification information includes calling party location information. In a preferred embodiment, this calling party location information is a pre-designated "home" location for the calling party. In an alternative preferred embodiment, this calling party location information is derived from the telephone number of the telephone subscriber unit being used by Calling Party 180 to access the apparatus of the present invention. In a preferred embodiment, information carried by mobile phone protocols is used, as is known in the art, to determine the calling party's current geographic position, localized to the geographic area or areas served by the particular mobile telephone cell or cells that are in communication with the calling party's mobile telephone when a call is placed. As is known in the art, the calling party's mobile telephone is generally localized sufficiently, for example by a cell tower's transmitted identification codes (e.g., the Station Identifier Code, SIC, Base Station Identifier Code, BSIC, or other identifiers), to permit determination from within the mobile phone of the appropriate dialing rules for a call. In preferred embodiments, and as is known in the art, the mobile phone of the calling party transmits identifying information (e.g., the Mobile Identification Number, MIN, equivalent to the subscriber's mobile phone number, the Electronic Service Number, ESN, and the System Identification Code, SID, of the mobile phone's home cellular system) that generally enables a determination, from within the Mobile Telephone Switching Office (MTSO), Mobile Switching Center (MSC) or other appropriately equipped location, of the dialing rules of the "home" location and of the current location of the calling party.

[0032] In the preferred embodiments depicted in FIG. 1, the means for selecting a target telephone number from the list of telephone numbers is Selector 155. In this preferred embodiment, Selector 155 is responsive to Producer 115, which is described below, and obtains the list of telephone numbers from Producer 115. As is known in the art, Selector 155 is an interactive user interface with Calling Party 180. Selector 155 presents Calling Party 180 with the list of telephone numbers and permits Calling Party 180 to select a target telephone number from the list of telephone numbers. In preferred embodiments, Selector 155 stores the target telephone number for future use, provides the target telephone number to an auto-dialer for storage and future use, or provides the target telephone number to a call generator for initiation of a telephone call, as is known in the art, between Calling Party 180 and the target telephone number. If the list of telephone numbers contains only a single telephone number, then, in a preferred embodiment, Selector 155 automatically designates the single telephone number to be the target telephone number. In this case,

however, in preferred embodiments, Selector 155 will still present the single telephone number to Calling Party 180 so that Calling Party 180 may note it.

[0033] As described below in connection with Producer 115, the list of telephone numbers may include valid telephone numbers in area code service areas within a predetermined scope responsive to calling party location information. When Selector 155 presents this list of telephone numbers to Calling Party 180, Calling Party 180 may determine that the predetermined scope is too narrow. In this case, Calling Party 180 can signal Selector 155 to request, as is known in the art, a new search by Area Code Processor 110 based on a predetermined expanded-scope. This request is communicated by Selector 155 to Area Code Processor 110.

[0034] As is known in the art, Selector 155 may perform other user interface functions related to controlling the operation of the apparatus of the present invention. For example, Calling Party 180 may select formats for the display of the list of telephone numbers through interaction with Selector 155.

[0035] The methods used by Selector 155 to interact with Calling Party 180 depend on the equipment used by Calling Party 180 to communicate with the apparatus of the present invention. If Calling Party 180 is using a standard telephone subscriber unit, then, as is known in the art, Calling Party 180 may use the touchpad of the subscriber unit while Selector 155 uses a voice synthesizer. If a subscriber unit used by Calling Party 180 includes a display screen, then Selector 155 may communicate using the display screen, or a voice synthesizer, or both. Similarly, if Calling Party 180 is using a personal computer, then Calling Party 180 may use the computer keyboard while Selector 155 communicates with Calling Party 180 through the computer's display screen, through a voice synthesizer, or both. A wide variety of other user interface devices may also be employed as are known in the art.

[0036] In the preferred embodiments depicted in FIG. 1, the area code processor is Area Code Processor 110. In the preferred embodiments, Area Code Processor 110 is in communication with Caller Interface 140. As is known in the art, Area Code Processor 110 may be implemented in hardware, in software, or in a combination of hardware and software. In a preferred embodiment Area Code Processor 110 is implemented as software on a personal computer. In a preferred embodiment, Calling Party 180 is a wireless mobile phone user and Area Code Processor 110 is implemented on hardware and/or software contained within the mobile phone handset and apparent to one of skill in the art in view of this specification and the appended claims. In a preferred embodiment, Calling Party 180 is a mobile phone user and Area Code Processor 110 is implemented on hardware and/or software contained at the mobile telephone carrier's transmission tower, the mobile telephone switching center, or elsewhere as part of a telecommunications network as apparent to one of skill in the art in view of this specification and the appended claims.

[0037] In the preferred embodiments depicted in FIG. 1, the means for producing a list of telephone numbers of the area code processor is Producer 115. In preferred embodiments, Producer 115 is responsive to called party information obtained from Caller Interface 140 and produces a list